

REMARKS

Claims 1-65 have been cancelled. New claims 66-77 have been added.

Reconsideration of the application is requested in view of the remarks that follow.

Claims 45-46, 48-54, 56-62 and 64-65 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sato et al. (US 5,766,360) in view of Toprac et al. (US 6,304,999) and the acknowledged prior art of the instant specification. As indicated above, these claims have been cancelled and new claims 66-77 have been added. For the reasons set forth below, Applicant traverses the above-stated §103(a) rejection as applied to new claims 66-77.

Each of Applicant's new independent claims 66, 71 and 76 recites a wafer processing tool for processing a sequence of wafers. In accordance with the claimed invention, a wafer in the sequence is processed by at least one wafer processing station included in the tool and then provided to a wafer inspection station that occupies one of the wafer processing slots of the same tool. The inspection station uses scatterometry techniques to generate characteristic optical signatures for the inspected wafer. Based upon the optical signatures obtained using the scatterometry techniques, process parameters that are specific to at least one of the wafer processing stations are altered such that subsequent wafers in the sequence of wafers are processed in accordance with a process flow that is different than the process flow experienced by the inspected wafer. Thus, new independent claim 66, 71 and 76 are directed to a "feedback" technique for processing wafers.

The primary reference cited by the Examiner, the Sato et al. reference, discloses the utilization of a wafer inspection station in a wafer processing tool. According to the Sato et al. disclosure, after inspection of a wafer in the inspection station, process parameters may be altered in the further processing of the wafer in the tool. However, based upon our review of the Sato et al. disclosure, it is Applicant's good faith belief that the process flow alteration taught by Sato et al. is specific to the inspected wafer. That is, upon review of the Sato et al. disclosure, Applicant submits that it does not appear that Sato et al. either teach or suggest alteration of process flow within the tool such that subsequent wafers in the sequence of wafers receive a

different sequence of processing steps than that received by the inspected wafer, as claimed by Applicant.

The Examiner also cites the Toprac et al. reference for its teaching of a scatterometry instrument for inspecting and controlling the processing of wafers. However, upon review of the Toprac et. al. reference, Applicant submits that this reference does not disclose the inclusion of a scatterometry station in a multi-station tool for the feedback process control within a wafer processing tool.

In view of the, Applicant is of the good faith belief that the references cited by the Examiner, whether considered individually or in combination, neither teach nor suggest the invention recited in Applicant's new independent claims 66, 71 and 76, or in claims depending therefrom. Thus, Applicant submits that the application is now in condition for allowance.

The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50-1703, under Order No. TTI-31000. **A duplicate copy of the transmittal cover sheet attached to this Response to Office Action Mailed November 10, 2005, is provided herewith.**

Respectfully submitted,

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